Neftyanoe khozyaystvo - Oil Industry 2014 N10, pages 44-47

Application of fractal dimensionwave field for seismiczone picking

Khamidullina G., Utemov E., Kharisov A.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The article discusses the use of the vertical derivative of the local dimension (Hurst exponent) on a small scale as a basis for fact-logical seismic-stratigraphic analysis and selection sequences. This article gives an example of the seismic profile located near arched structures North-Western strike formed on the joint portion of the central and Eastern parts of the board Melekess depression Volga-Uralanticlise. As a result of seismic-stratigraphical analysis the authors located ten sequences that span the sedimentation processes in time periods ranging from Givetian to Vereiskian time. Based on the studies we are concluded that the value of the local fractal dimension (Hurst exponent) of the wave field can be used for analysis and construction of seismic-stratigraphic chronostratic section.

Keywords

Chronostratic section, Fractal co-dimension, Seismic complex, Seismic section, Sequences